

REMARKS

Claims 1-4 are currently pending in the present patent application. In the subject Office Action, the Examiner rejected claims 1-4 under 35 U.S.C. 102(b) as being anticipated by Brotz (U.S. Patent No. 6,161,382), since the Examiner stated that Brotz shows an actuator in Fig. 7 having at least one surface having a larger area than other surfaces thereof and consisting of a conjugated polymer material (middle layer between 144 and 146), whereby said material expands when an electrical voltage is applied between two locations thereof (between electrodes 144 and 146) and contracts when the electrical voltage is reduced, neither of the two locations being coextensive with the at least one surface having a larger area. Said conjugated polymeric material comprises polyaniline (Col. 4, lines 11-13). Applicants respectfully disagree with the Examiner concerning this ground of rejection for the reasons to be set forth hereinbelow.

The Examiner next rejected claims 2 and 4 under 35 U.S.C. 103(a) as being unpatentable over Brotz (U.S. Patent No. 6,161,382), since the Examiner asserted that Brotz does not note the doping of the polyaniline. However, the Examiner continued, applicants note in their remarks that such is common in the art, and that it would have been obvious to employ the commonly used doped polyaniline in any of their inventions. Applicants respectfully disagree with the Examiner concerning this ground of rejection for the reasons to be set forth hereinbelow.

The Examiner made certain prior art of record, but did not apply these documents to the subject claimed invention. After reviewing the references applicants do not believe that further response is required.

Turning now to the Brotz reference, Brotz discloses a three-layered strip, wherein at least one of the two outer layers has a different composition from the inner layer. See, e.g., Col. 1, lines 35-46 of Brotz. Figures 1-15 of Brotz show side views of various embodiments of the three-layered strip. Side views generally show the smaller dimensions of an article. The American Heritage Dictionary Of The English Language, Third Edition, (Houghton Mifflin Company, Boston-New York, 1992) defines "strip" as "A long narrow piece, usually of uniform width: a strip of paper; strips of beef."

In Col. 4, lines 8-13 of Brotz, it is stated that: "Although copper and bismuth are illustrated in FIGS. 1-4, other equivalent materials and semiconductive materials can be utilized to achieve a desired movement of the tri-clad strip of this invention. Doped strips of conductive organic polymer, such as polyaniline, polyacetylene, polypyrrole, and polythiophene can be used."

Present claim 1 recites "An actuator ... consisting of a conjugated polymeric material," The common meaning when the transitional words "consisting of" are used is that the resulting claim covers devices having the recited elements and no more. Therefore, the tri-clad strip or three-layered strip of Brotz is not covered by the present claims. Similarly, present claim 3 recites "... directly electrically stimulating a conjugated polymeric material" Again, this refers to a single material and not the tri-clad or three-layer strip of Brotz. Thus, applicants respectfully believe that the Brotz reference teaches away from the present claimed invention.

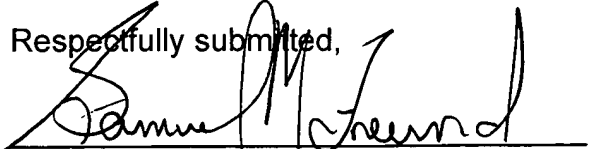
Moreover, present claims 1 and 3, as previously amended, require that the locations of electrical excitation of the conjugated polymeric material are not coextensive with the at least one surface having a larger area. Turning to FIG. 7 of Brotz, it may be observed that the location of excitation of the bismuth or conductive organic polymeric material is achieved over a portion of the central layer of the tri-clad or three-layer strip of Brotz which is substantially coextensive with the material being electrically excited. Thus, applicants respectfully believe that the Brotz reference teaches away from the present claimed invention.

In view of these statements, applicants believe that the Brotz reference does not clearly anticipate subject claims 1 and 3 as asserted by the Examiner. Additionally, since the Brotz reference teaches away from the present invention, applicants believe that the Examiner has not made a proper *prima facie* case for the obviousness rejection under 35 U.S.C. 103(a).

For these reasons, applicants believe that present claims 1-4 are in condition for allowance or appeal, the former action by the Examiner at an early date being earnestly solicited. Reexamination and reconsideration are respectfully requested.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Samuel M. Freund", is written over a horizontal line.

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